

Fuel Injected Models – Avoiding Fuel-Related Problems

Your Honda Marine engine is designed and manufactured to precise specifications to ensure years of trouble-free operation. This includes the fuel system. However, the properties of gasoline can quickly lead to stale fuel causing starting or running problems and, in some cases, damage to the fuel system if precautions are not followed. The good news is most fuel-related problems can be avoided by following a few simple steps.

Follow These Steps to Prevent Most Fuel-Related Problems

<u>Step</u>	<u>Reason</u>
1. Do not use gasoline containing more than 10% ethanol in your Honda outboard motor.	Gasoline containing higher levels of ethanol is corrosive and quickly attracts water, which can cause starting or running problems or, in some cases, damage to your engine's fuel system.
2. If it may take more than 30 days to consume the fuel in the fuel tank, we suggest adding a fuel stabilizer to the fuel each time you <u>fill</u> the tank.	The current properties of gasoline can quickly lead to stale fuel causing starting or running problems.
<p>Portable fuel tank: Close the vent when not in use and store the fuel tank away from direct sunlight.</p> <p>Inboard fuel tank: We recommend adding a fuel stabilizer following the manufacturer's instruction each time you fill your boat's fuel tanks.</p>	Gasoline will deteriorate faster when exposed to air and sunlight.
3. When you're finished using your outboard, fill the fuel tank to minimize air in the tank. If you do not intend to use your outboard for 30 days or more, add fuel stabilizer when you fill the fuel tank. Start the engine (in water) and allow it to run until the stabilizer/fuel mixture fills the vapor separator (about 10 minutes). Turn the engine OFF and disconnect the fuel line (portable fuel tanks). Note: If you normally use a fuel stabilizer when filling your fuel tank, stabilized fuel will already be in the vapor separator.	<p>The small amount of gasoline in your engine's vapor separator will deteriorate faster than the fuel in the fuel tank due to its small volume and proximity to residual engine heat.</p> <p>Fill the fuel tank after each use (instead of before each use). If the fuel tank is partially filled, air in the tank will promote fuel deterioration.</p>
4. If you don't plan to use your Honda outboard motor for more than 30 days, follow the storage guidelines on the following page.	Untreated gasoline (without a fuel stabilizer) left in the engine's fuel system will deteriorate, causing starting or running problems and, in some cases, damage to the fuel system.
5. Additionally, we recommend installing a primary fuel/water separator in your boat when the boat has inboard fuel tank(s). This filter is located between the fuel tank(s) and the motor. A primary fuel/water separator provides additional capacity to remove water and contaminants before reaching the motor's filter.	The larger capacity of inboard fuel tanks can absorb a greater amount of water, requiring additional capacity to filter out water and contaminants.

Refer to your owner's manual for additional information. If you do not have an owner's manual, you can download the manual from the Honda Marine website at <http://marine.honda.com> > Owner's Resources > Owner's Manuals.

Storing Your Honda Outboard Motor for More Than 30 Days

If you don't plan to use your Honda outboard motor for more than 30 days, follow these steps to reduce fuel-related problems.

Storage Time: 30 to 90 days

1. Add fuel stabilizer to the fuel tank following the manufacturer's instructions. When adding a fuel stabilizer, fill the fuel tank with fresh gasoline. If only partially filled, air in the tank will promote fuel deterioration during storage.

Note:

- All stabilizers have a shelf life and their performance will deteriorate over time.
 - Fuel stabilizers will not reconstitute stale fuel.
2. After adding a fuel stabilizer, run the engine for 10 minutes to be sure the treated gasoline has replaced the untreated gasoline throughout the fuel system. Always run the engine in water to prevent damage to the cooling system.
 3. Stop the engine and disconnect the fuel line (portable tank).



**Honda Marine Fuel Stabilizer,
32 oz. PN 08732-0032M
8 oz. PN 08732-0008M**

Storage Time: More than 90 days (long term or seasonal storage)

Drain the vapor separator following the instructions in your owner's manual. Drain the portable fuel tank (if applicable). If you have an inboard fuel tank, we recommend filling the tank with fresh fuel and adding the appropriate amount of fuel stabilizer.

Stale Fuel in Your Portable Fuel Tank or Fuel Container

If you have some fuel left in your portable fuel tank or storage container at the end of the season, the Environmental Protection Agency (EPA) suggests adding the gasoline to your car's gas tank (<http://epa.gov/reg50air/mobile/winter.html>), provided your car's fuel tank is fairly full.